#### RAW SEQUENCE LISTING PATENT APPLICATION US/08/779,599

DATE: 03/04/97 TIME: 13:58:01

INPUT SET: S15900.raw

This Raw Listing contains the General Information Section and up to the first 5/pages

```
1
 2
 3
     (1)
            General Information:
 4
 5
        (i) APPLICANT: Goeddel, David V.
                       Rothe. Mike
 6
 7
 8
       (ii) TITLE OF INVENTION: Tumor Necrosis Factor Receptor-Associated Factors
 9
      (iii) NUMBER OF SEQUENCES: 59
10
11
       (iv) CORRESPONDENCE ADDRESS:
12
            (A) ADDRESSEE: Genentech, Inc.
13
14
            (B) STREET: 460 Point San Bruno Blvd
15
            (C) CITY: South San Francisco
16
            (D) STATE: California
            (E) COUNTRY: USA
17
18
            (F) ZIP: 94080
19
20
        (V) COMPUTER READABLE FORM:
21
            (A) MEDIUM TYPE: 3.5 inch, 1.44 Mb floppy disk
22
            (B) COMPUTER: IBM PC compatible
23
            (C) OPERATING SYSTEM: PC-DOS/MS-DOS
24
            (D) SOFTWARE: WinPatin (Genentech)
25
       (vi) CURRENT APPLICATION DATA:
26
27
            (A) APPLICATION NUMBER:
28
            (B) FILING DATE: 07-Jan-1997
29
            (C) CLASSIFICATION:
30
31
     (viii) ATTORNEY/AGENT INFORMATION:
32
            (A) NAME: Dreger, Ginger R.
33
            (B) REGISTRATION NUMBER: 33,055
34
            (C) REFERENCE/DOCKET NUMBER: P0897C2
35
      (ix) TELECOMMUNICATION INFORMATION:
36
37
            (A) TELEPHONE: 415/225-3216
38
            (B) TELEFAX: 415/952-9881
39
            (C) TELEX: 910/371-7168
40
     (2) INFORMATION FOR SEQ ID NO:1:
41
42
43
        (i) SEQUENCE CHARACTERISTICS:
            (A) LENGTH: 2088 base pairs
44
45
            (B) TYPE: Nucleic Acid
46
            (C) STRANDEDNESS: Single
```

#### RAW SEQUENCE LISTING PATENT APPLICATION US/08/779,599

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(D) TOPOLOGY: Linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1:

> CCCAGCCGG TTCTCTGCCC CAAGGACGCT ACCGCCCAAT GCGAGCAGAA 50 GGCGGCGCAC AGATACAGAA AGTGAGGCTC AGACATATTG AAGACCGTGT 100 GACATAGGGT AGCCAAATGA CAGTGTGAGA AAGTGACATT TACTCAAGGC 150 CACCCAGATA TCCTGGAGGA CCCAGAACCC TGGAGATTCC CATCAGAAAG 200 ACCTTCTGGC CACCTGAAAC CCCAAGATGG CCTCCAGCTC AGCCCCTGAT 250 GAAAACGAGT TTCAATTTGG TTGCCCCCCT GCTCCCTGCC AGGACCCATC 300 GGAGCCCAGA GTTCTCTGCT GCACAGCCTG TCTCTCTGAG AACCTGAGAG 350 ATGATGAGGA TCGGATCTGT CCTAAATGCA GAGCAGACAA CCTCCATCCT 400 GTGAGCCCAG GAAGCCCTCT GACTCAGGAG AAGGTTCACT CTGATGTAGC 450 TGAGGCTGAA ATCATGTGCC CCTTTGCAGG TGTTGGCTGT TCCTTCAAGG 500 GGAGCCCACA ATCCATGCAG GAGCATGAGG CTACCTCCCA GTCCTCCCAC 550 CTGTACCTGC TGCTGGCGGT CTTAAAGGAG TGGAAATCCT CACCAGGCTC 600 CAACCTAGGG TCTGCACCCA TGGCACTGGA GCGGAACCTG TCAGAGCTGC 650 AGCTTCAGGC AGCTGTGGAA GCGACAGGGG ACCTGGAGGT AGACTGCTAC 700 CGGGCACCTT GCTGTGAGAG CCAGGAAGAA CTGGCCCTGC AGCACTTGGT 750 GAAGGAGAAG CTGCTGGCTC AGCTGGAGGA GAAGCTGCGT GTGTTTGCAA 800 ACATTGTTGC TGTCCTCAAC AAGGAAGTGG AGGCTTCCCA CCTGGCACTG 850 GCCGCCTCCA TCCACCAGAG CCAGTTGGAC CGAGAGCACC TCCTGAGCTT 900 GGAGCAGAGG GTGGTGGAAT TACAGCAAAC CCTGGCTCAA AAAGACCAGG 950 TCCTGGGCAA GCTTGAGCAC AGTCTGCGAC TCATGGAGGA GGCATCCTTT 1000 GATGGTACTT TCCTGTGGAA GATCACCAAT GTCACCAAGC GGTGCCACGA 1050 GTCAGTGTGT GGCCGGACTG TCAGCCTCTT CTCTCCAGCT TTCTACACTG 1100 CCAAGTATGG TTACAAGTTG TGCCTGCGCT TGTACCTGAA CGGGGATGGC 1150 TCAGGCAAGA AGACCCACCT GTCCCTCTTC ATCGTGATCA TGAGAGGAGA 1200

# RAW SEQUENCE LISTING PATENT APPLICATION US/08/779,599

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	INFUL SELL SISTOULIA
100	ATACGATGCT CTCCTGCCCT GGCCTTTCAG GAACAAGGTC ACCTTTATGC 1250
101 102	TACTTGACCA GAACAACCGA GAGCATGCTA TTGATGCCTT CCGGCCTGAC 1300
103 104	CTGAGCTCAG CCTCCTTCCA GCGGCCACAG AGTGAGACCA ACGTGGCCAG 1350
105	CIONOCIONO COICOTICON GOOGLONG NOTONGRON NOTOGOCINO 1330
106 107	CGGCTGCCCG CTCTTCTCC CCCTCAGCAA GCTGCAGTCA CCCAAGCACG 1400
108	CCTACGTCAA AGATGACACA ATGTTCCTCA AATGCATTGT GGACACTAGT 1450
109 110	GCTTAGGGAT GGGGGGAGGG GGTGTCTCCT GACAGAACCA GCTTAGACTG 1500
111	GETTAGGGAT GGGGGGAGGG GGTGTETEET GACAGAACCA GETTAGACTG 1500
112	GGGGACTTAG CTAGACAGCC AGGCCCTGCC TGCCCTTGGA GCCCACAGCC 1550
113 114	CACGACAAGG AGGAGCCAAG GCTGGCATGA CTTCAGCGCC ACAGCATGCT 1600
115	
116 117	GGTTATGGCT GATGTGAGGC TGGAGAAACG TGTGCGTACA GAGACAGAGT 1650
118	GGAGGAGAAG ACAGAAGTGC TCTTTTCACA CAGACTACAC GACACCAGGA 1700
119 120	GGCCAGCATG CCAGCAGCTT CTGAATGTTG AGACCAGCCT AGATCAGGAT 1750
121	
122 123	GAAAAGAGCC AGGCCTGAGG CTTGGACATT GAGCCAAGGC TATGGGGCCT 1800
124	AAGTGGAGGG GCACTCCTAC CAGGACATTC TCTCGAGGTC AGGGCATAAC 1850
125	MOGRADANIA COCCONTINUE MOMORITARIA CINCARANA CARCARAGA 1000
126 127	TGGAAAAATG CCCCCATCTC TCTGTTCAGA CTCAAAACTA GAACCACAGG 1900
128	GCAGAAGGGT CAGACATTAA TGTGAATTTA ACCTGCCCTG GACTGAGTTC 1950
129 130	CTATGTTAAC AGACACGCAA ACAGGTAAAC CCAGAAACTG CCCTGGGAAA 2000
131	
132 133	TGCTTTCTGG CTGCATCTGG AGATCTTTGA TGTTTTTACC GACAAAACAA 2050
134	ATAACAAAAG CCTTGAATTG CAAAAAAAAA AAAAAAAA 2088
135 136	(2) INFORMATION FOR SEQ ID NO:2:
137	(2) INFORMATION FOR SEQ ID NO.2.
138 139	(i) SEQUENCE CHARACTERISTICS:
140	(A) LENGTH: 409 amino acids (B) TYPE: Amino Acid
141	(D) TOPOLOGY: Linear
142 143	(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2:
144	(AI) Digolaci Discall Hoa. Dig ID No.2.
145 146	Met Ala Ser Ser Ser Ala Pro Asp Glu Asn Glu Phe Gln Phe Gly
147	1 5 10 15
148	Cys Pro Pro Ala Pro Cys Gln Asp Pro Ser Glu Pro Arg Val Leu
149 150	20 25 30
151	Cys Cys Thr Ala Cys Leu Ser Glu Asn Leu Arg Asp Asp Glu Asp
152	35 40 45

## PAGE: 4 RAW SEQUENCE LISTING PATENT APPLICATION US/08/779,599

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153															
153 154 155 156	Arg	Ile	Cys	Pro	Lys 50	Cys	Arg	Ala	Asp	Asn 55	Leu	His	Pro	Val	Ser 60
157 158 159	Pro	Gly	Ser	Pro	Leu 65	Thr	Gln	Glu	Lys	Val 70	His	Ser	Asp	Val	Ala 75
160 161 162	Glu	Ala	Glu	Ile	Met 80	Cys	Pro	Phe	Ala	Gly 85	Val	Gly	Cys	Ser	Phe 90
163 164 165	Lys	Gly	Ser	Pro	Gln 95	Ser	Met	Gln	Glu	His 100	Glu	Ala	Thr	Ser	Gln 105
166 167 168	Ser	Ser	His	Leu	Tyr 110	Leu	Leu	Leu	Ala	Val 115	Leu	Lys	Glu	Trp	Lys 120
169 170 171	Ser	Ser	Pro	Gly	Ser 125	Asn	Leu	Gly	Ser	Ala 130	Pro	Met	Ala	Leu	Glu 135
172 173 174	Arg	Asn	Leu	Ser	Glu 140	Leu	Gln	Leu	Gln	Ala 145	Ala	Val	Glu	Ala	Thr 150
175 176 177	Gly	Asp	Leu	Glu	Val 155	Asp	Cys	Tyr	Arg	Ala 160	Pro	Cys	Cys	Glu	Ser 165
178 179 180	Gln	Glu	Glu	Leu	Ala 170	Leu	Gln	His	Leu	Val 175	Lys	Glu	Lys	Leu	Leu 180
181 182 183	Ala	Gln	Leu	Glu	Glu 185	Lys	Leu	Arg	Val	Phe 190	Ala	Asn	Ile	Val	Ala 195
184 185 186	Val	Leu	Asn	Lys	Glu 200	Val	Glu	Ala	Ser	His 205	Leu	Ala	Leu	Ala	Ala 210
187 188 189	Ser	Ile	His	Gln	Ser 215	Gln	Leu	Asp	Arg	Glu 220	His	Leu	Leu	Ser	Leu 225
190 191 192	Glu	Gln	Arg	Val	Val 230	Glu	Leu	Gln	Gln	Thr 235	Leu	Ala	Gln	Lys	Asp 240
193 194 195	Gln	Val	Leu	Gly	_				Ser		Arg		Met	Glu	Glu 255
196 197 198	Ala	Ser	Phe	Asp	Gly 260	Thr	Phe	Leu	Trp	Lys 265	Ile	Thr	Asn	Val	Thr 270
199 200 201	Lys	Arg	Cys	His	Glu 275	Ser	Val	Cys	Gly	Arg 280	Thr	Val	Ser	Leu	Phe 285
202 203 204	Ser	Pro	Ala	Phe	Туг 290	Thr	Ala	Lys	Tyr	Gly 295	Tyr	Lys	Leu	Cys	Leu 300
205	Arg	Leu	Туr	Leu	Asn	Gly	Asp	Gly	Ser	Gly	Lys	Lys	Thr	His	Leu

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## RAW SEQUENCE LISTING PATENT APPLICATION US/08/779,599 DATE: 03/04/97 TIME: 13:58:14

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				IN	PUT SET: \$15900.
206		305	310		315
207					_
208	Ser Leu Phe I		Arg Gly Glu T	yr Asp Ala Leu	
209		320	325		330
210 211	Dro Tro Dro D	ho Ara Aan Fee	s Val Thr Phe M	ot Tou Tou Asn	aln
211	PIO TID PIO P	ne arg asn Ly: 335	340	et Led Led Asp	345
213		333	240		545
214	Asn Asn Arg G	lu His Ala Ile	Asp Ala Phe A	rg Pro Asp Leu	Ser
215		350	355		360
216					
217	Ser Ala Ser P	he Gln Arg Pro	Gln Ser Glu T	hr Asn Val Ala	Ser
218		365	370		375
219					
220	Gly Cys Pro L		Leu Ser Lys L	eu Gln Ser Pro	
221		380	385		390
222			m1		••- 3
223	His Ala Tyr V		Thr Met Phe L	eu Lys Cys IIe	
224 225		395	400		405
225	Asp Thr Ser A	l s			
227	=	09			
228	*				
229	(2) INFORMATIO	N FOR SEO ID 1	10:3:		
230	` '	-			
231	(i) SEQUENC	E CHARACTERIST	rics:		
232		GTH: 2121 base			
233		E: Nucleic Act			
234	, ,	ANDEDNESS: Si	ngle		
235	(D) TOP	OLOGY: Linear			
236	(mi) CHOURNO	e Decapionion.	CEO TO NO.2.		
237 238	(XI) SEQUENC	E DESCRIPTION:	SEQ ID MO:3:		
239					
240	GCGCGAAGAC CG	TTGGGGCT TTGT	GTGTG TGGGGGTT	GT AACTCACATG	50
241					
242	GCTGCAGCCA GT	GTGACTTC CCCTC	GCTCC CTAGAACT	GC TACAGCCTGG	100
243					
244	CTTCTCCAAG AC	CCTCCTGG GGAC	CAGGTT AGAAGCCA	AG TACCTCTGTT	150
245					
246	CAGCCTGCAA AA	ACATCCTG CGGA	GCCTT TCCAGGCC	CA GTGTGGGCAC	200
247					250
248 249	CGCTACTGCT CC	TTCTGCCT GACC	GCATC CTCAGCTC	rg ggccccagaa .	250
249 250		<b>ምርምርም</b> እጥር እ <i>እርርር</i>	CTGTA TGAAGAAG	ግር አጥጥጥርጥ አጥጥጥ	300
250 251	CIGIGCIGCC 16	IGICIAIG AAGGO	CIGIA IGAAGAAG	3C AITICIAITI	300
252	TAGAGAGTAG TT	CGGCCTTT CCAG	TAACG CTGCCCGC	AG AGAGGTGGAG	350
253		color conor			<del>-</del>
254	AGCCTGCCAG CT	GTCTGTCC CAATO	SATGGA TGCACTTG	GA AGGGGACCTT	400
255					
256	GAAAGAATAC GA	GAGCTGCC ACGA	GGACT TTGCCCAT	TC CTGCTGACGG	450
257					
258	AGTGTCCTGC AT	GTAAAGGC CTGG	CCGCC TCAGCGAG	AA GGAGCACCAC	500





# SEQUENCE VERIFICATION REPORT PATENT APPLICATION US/08/779,599

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Original Text